

### Taxonomic status of *Nama stevensii* var. *gypsicola* (Hydrophyllaceae)

Billie L. Turner, Plant Resources Center, The University of Texas, Austin, TX 78712  
[billie.turner@austin.utexas.edu](mailto:billie.turner@austin.utexas.edu)

#### ABSTRACT

I.M. Johnston first proposed the varietal name “*gypsicola*” positioning it within the well-known *N. hispida*. Bacon subsequently transferred the taxon to the *N. stevensii* complex as var. *gypsicola*. Subsequent workers have largely ignored the name. I have reviewed the problem and conclude that the var. *gypsicola* is synonymous with *N. stevensii* and that there are no obvious morphological characters to distinguish between the populations of the USA and those of northern Mexico. Published on-line [www.phytologia.org](http://www.phytologia.org) *Phytologia* 99(2): 116-117 (May 9, 2017). ISSN 030319430.

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I. M. Johnston (1941) first proposed the name var. *gypsicola*, a taxon of gypseous soils, the type from southern Coahuila, Mexico. He attached the name to his concept of the widespread, highly variable, *N. hispida*. Bacon (1981) subsequently recognized its much closer relationship to the *N. stevensii* complex of the USA, attaching the varietal name accordingly [*Nama stevensii* var. *gypsicola* (I.M. Johnst.) J.D. Bacon.]

*Nama stevensii* C.L. Hitchcock is typified by material from Oklahoma. It is also a gypsophile occurring sporadically from southeastern Nebraska to western Texas, and closely adjacent New Mexico (Map1). Populations from Mexico (Map 2), as noted above, have been given the name var. *gypsicola*. Indeed, all of the Mexican specimens of *N. stevensii* at LL-TEX (15 sheets) were annotated as such by Bacon, although he had not published an account of how these might differ from his concept of *N. stevensii* var. *stevensii*, having annotated several sheets as such at LL-TEX.

Strangely, Tyril et al. (1984), while noting the proposed *N. stevensii* var. *gypsicola* of Bacon, fail to account for its morphological distinction, if any, presumably not having adequate material from Mexico by which to evaluate the proposed taxon. Taylor (2012, unpublished) has provided the most recent taxonomic study of *Nama*. In this she provides an excellent key to the genus *Nama*, the species *N. stevensii* readily recognized from related taxa by its short styles (2-4 mm long). She did however recognize an unpublished taxon (*N. monclova*) having style branches ca 2 mm long (vs 4 mm in *N. stevensii*). She grouped her *S. monclova* next to *N. stevensii* in her cladogram of Fig. A8 (p 225). However, she too does not account for the var. *gypsicola*, apparently sweeping it within the broad confines of *N. stevensii* and/or *N. monclova*, as I have done in the present account: having now examined all of the sheets of both proposed infraspecific taxa at LL-TEX, I conclude that there are no clear morphological characters that separate the named varieties, although there are likely to be DNA differences between the Mexican populations and those of the USA, as suggested by the work of Taylor (2012).

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Distribution maps are based upon specimens on file at LL-TEX and those provided by the website of the USDA. My close colleague, Jana Kos, provided meaningful editorial input.

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